

Claims:

1-38. (cancelled)

39. (currently amended) A bale handling apparatus, ~~comprising~~ comprising:

a bale-receiving channel that comprises:

a base defined by a bale support surface, for engagement with the undersurface of a bale;

two opposed side walls, one adjacent located one on either each side of the said bale support; and surface, defining with the bale support surface a bale-receiving channel for receipt of a bale; and

an opening defined between said opposed side walls at one end of said bale support for loading and discharging a bale; and

bale displacement apparatus adapted to displace the displacement means for displacing said bale in a controlled manner off the said bale support surface; and out of said bale-receiving channel through said opening.

40. (previously presented) The bale handling apparatus as claimed in claim 39, wherein the bale-receiving channel is elongate.

41. (currently amended) The bale handling apparatus as claimed in claim 40, wherein the bale-receiving channel has a longitudinal axis that is transverse to the forward direction of a vehicle upon which the apparatus is adapted to be mounted in use.

42. (currently amended) The bale handling apparatus as claimed in claim 40, wherein the bale-receiving channel has a longitudinal axis that is parallel to the forward direction of a vehicle upon which the apparatus is ~~adapted to be~~ mounted in use.

43. (currently amended) The bale handling apparatus as claimed in claim 40, the apparatus being adjustable between a first position in which the longitudinal axis of the bale-receiving channel is parallel to the forward direction of a supporting vehicle upon which the apparatus is ~~adapted to be~~ mounted in use and a second position in which the longitudinal axis of the bale-receiving channel is transverse to the forward direction of the supporting vehicle.

44 - 45. (cancelled).

46. (currently amended) The bale handling apparatus as claimed in claim 39, wherein the side walls have edges adjacent to ~~the discharge opening~~ said opening that are tapered.

47. (previously presented) The bale handling apparatus as claimed in claim 39, wherein the bale support surface is elongate.

48. (currently amended) The bale handling apparatus as claimed in claim 39, ~~and~~ further comprising ~~attachment members adapted for connection of the apparatus to a vehicle an~~ attachment means for attachment to a lifting means, whereby said bale-receiving channel is lifted by the lifting means to predetermined heights for receiving and for discharging the bale.

49. (previously presented) The bale handling apparatus as claimed in claim 39, and further comprising means for increasing the effective length of the bale support surface.

✓ 50. (previously presented) The bale handling apparatus as claimed in claim 39, and further comprising a slide member which is movable to a position adjacent the bale support surface.

✓ 51. (previously presented) The bale handling apparatus as claimed in claim 50, wherein the slide member is pivotally mounted.

C 52. (currently amended) The bale handling apparatus as claimed in claim 39, and further comprising an agitating apparatus for breaking away portions of a bale as they are displaced ~~along a path off the bale support surface~~ out of said opening of said bale-receiving channel.

53. (previously presented) The bale handling apparatus as claimed in claim 52, wherein the agitating apparatus is displaceable into and out of the path of a bale.

54. (previously presented) The bale handling apparatus as claimed in claim 52, wherein the agitating apparatus includes a rotatable member having projecting portions.

55. (previously presented) The bale handling apparatus as claimed in claim 52, wherein the agitating apparatus includes a plurality of agitating structures.

56. (currently amended) The bale handling apparatus as claimed in claim 55, comprising a first agitating structure for engagement with an ~~adapted to engage the~~ upper portion

of a bale and a second agitating structure for engagement with an ~~adapted to engage the~~ lower portion of a bale.

57. (currently amended) The bale handling apparatus as claimed in claim 39, and further comprising a directing structure for directing material ~~displaced from the bale support surface~~ discharged through said opening of said bale-receiving channel.

C 58. (currently amended) The bale handling apparatus as claimed in claim 57, and further comprising a conveyor located adjacent to ~~an end of the bale support surface~~ said opening of said bale-receiving channel.

59. (currently amended) The bale handling apparatus as claimed in claim 58, wherein ~~the~~ said conveyor is movable in a direction transverse to a direction of displacement of material displaced from ~~the bale support surface~~ said opening of said bale-receiving channel.

60. (previously presented) The bale handling apparatus as claimed in claim 58, wherein the conveyor is movable in opposite directions.

61. (previously presented) The bale handling apparatus as claimed in claim 58, wherein the conveyor includes an endless conveyor.

62. (currently amended) The bale handling apparatus as claimed in claim 39, ~~wherein the bale displacement apparatus~~ said displacement means includes a movable member that is engageable with an end face of the bale.

63. (previously presented) The bale handling apparatus as claimed in claim 62, wherein the movable member includes a generally planar body.

64. (previously presented) The bale handling apparatus as claimed in claim 63, wherein the planar body is one of a wall and a gate.

65. (previously presented) The bale handling apparatus as claimed in claim 62, wherein the bale displacement apparatus further includes at least one worm drive for displacing the movable member.

66. (currently amended) The bale handling apparatus as claimed in claim 65, ~~wherein there are~~ comprising two worm drives, ~~one located one on either adjacent each side of~~ the apparatus.

67. (currently amended) The bale handling apparatus as claimed in claim 39, wherein ~~the bale~~ said displacement means ~~apparatus~~ includes a member to which one cut end of a bale binding is affixable and a pulling device for pulling the other cut end of the bale binding.

68. (previously presented) The bale handling apparatus as claimed in claim 67, wherein the pulling device is a driven rotatable drum to which the other cut end is affixable and around which a portion of the bale binding is wound upon rotation of the drum.

69. (previously presented) The bale handling apparatus as claimed in claim 68, wherein the pulling device includes a series of clamps forming part of a conveyor apparatus and the other cut end is affixable to any one of the clamps.

70. (previously presented) The bale handling apparatus as claimed in claim 39 wherein the bale support surface includes a substantially smooth plate upon which the bale is slidable.

71. (previously presented) The bale handling apparatus as claimed in claim 39, wherein the bale support surface includes a plurality of spaced-apart support members.

72. (previously presented) The bale handling apparatus as claimed in claim 71, wherein the support members extend in a direction of displacement of the bale.

73. (previously presented) The bale handling apparatus as claimed in claim 39, wherein the bale support surface is movable and is adapted to displace a bale supported thereon.

74. (previously presented) The bale handling apparatus as claimed in claim 73, wherein the bale support surface includes an upper surface of a conveyor apparatus.

75. (previously presented) The bale handling apparatus as claimed in claim 74, wherein the conveyor apparatus is operable to move the bale in opposite directions.

76. (withdrawn) A bale handling apparatus, comprising a bale support surface, bale displacement apparatus for displacing the bale in a controlled manner off the bale support surface and bale guides for guiding a bale onto and off the bale support surface, the bale guides including two upright guide members, one located adjacent either side of the bale support surface.

77. (withdrawn) The bale handling apparatus as claimed in claim 76, wherein the upright guide members are tapered.

78. (withdrawn) The bale handling apparatus as claimed in claim 76, wherein the bale guides and the bale support surface define an elongate bale-receiving channel.

79. (withdrawn) The bale handling apparatus as claimed in claim 78, wherein the bale-receiving channel has a longitudinal axis transverse to a direction of forward travel of a vehicle upon which the apparatus is adapted to be mounted.

80. (withdrawn) The bale handling apparatus as claimed in claim 78, wherein the bale-receiving channel has a longitudinal axis parallel to a direction of forward travel of a vehicle upon which the apparatus is adapted to be mounted.

CA 81. (withdrawn) The bale handling apparatus as claimed in claim 78, wherein the bale-receiving channel has a longitudinal axis and the apparatus is adjustable between a first position in which the longitudinal axis of the bale-receiving channel is parallel to a direction of forward travel of a vehicle upon which the apparatus is adapted to be mounted and a second position in which the longitudinal axis of the bale-receiving channel is transverse to the forward direction of the vehicle.

82. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising a discharge opening at one end of the bale-receiving channel.

83. (withdrawn) The bale handling apparatus as claimed in claim 82, wherein the discharge opening also receives a bale into said bale-receiving channel.

84. (withdrawn) The bale handling apparatus as claimed in claim 76, wherein the bale support surface is elongate.

85. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising attachment means for connection to the vehicle.

86. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising means for increasing the effective length of the bale support surface.

87. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising a slide member which is movably positionable adjacent the bale support surface.

88. (withdrawn) The bale handling apparatus as claimed in claim 87, wherein the slide member is pivotally mounted.

89. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising an agitating apparatus for breaking up portions of a bale as it is displaced off the bale support surface.

90. (withdrawn) The bale handling apparatus as claimed in claim 89, wherein the agitating apparatus is displaceable into and out of the path of a bale.

91. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising means for directing material displaced from the bale support surface.

92. (withdrawn) The bale handling apparatus as claimed in claim 76, and further comprising a conveyor located adjacent to the bale support surface to receive material displaced from the bale support surface.

93. (withdrawn) The bale handling apparatus as claimed in claim 76, wherein the bale support surface is movable in order to displace a bale supported by it.

94. (withdrawn) The bale handling apparatus as claimed in claim 76, wherein the bale support surface includes the upper surface of a conveyor apparatus adapted to move in a direction to displace a bale off the bale support surface.

95. (withdrawn) The bale handling apparatus as claimed in claim 94, wherein the conveyor apparatus is adapted to move in a direction to move a bale onto the bale support surface.

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96. (currently amended) A bale handling apparatus for use in conjunction with a lifting means, the bale handling apparatus comprising a bale support surface ~~adapted to support for receiving and supporting a bale, a bale displacement means for displacing apparatus adapted to displace a bale supported on the bale support surface in a controlled manner along a path off the bale support surface, and an agitating apparatus adapted to break up portions of a bale as the bale is displaced off the bale support surface, the agitating apparatus being displaceable into and out of the path of the bale~~ an attachment means for attachment to the lifting means, whereby the bale support surface is lifted by the lifting means to predetermined heights for receiving and for discharging the bale.

97 -107. (cancelled).
